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| 10/664,885 | 09/22/2003 | Raymond Gass | Q77463 | 4263 |

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| EXAMINER | |
|---|---|
| FAROUL, FARAH | |
| **ART UNIT** | **PAPER NUMBER** |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/664,885 | GASS, RAYMOND | |
| | Examiner | Art Unit | |
| | Farah Faroul | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/22/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. The following Office Action is based on the preliminary amendment filed on September 22, 2003, claiming foreign priority from a European application filed on October 22, 2002, having claims 1-10 and figures 1-2.

### *Specification*

2. The disclosure is objected to because of the following informalities:

In page 2, line 4, of the disclosure, the word "us" has to be replaced with the word "use".

It is suggested that applicant replace the word "showed" in page 3, line 9, of the disclosure with the word "shown".

Appropriate correction is required.

### *Claim Objections*

3. Claims 1-3 and 9-10 are objected to because of the following informalities:

The term "preferably" recited in line 11 of claim 1 needs to be deleted to make the claim positive.

The term "preferably" recited in line 2 of claim 3 needs to be deleted to make the claim positive.

The term "possibly" recited in line 4 of claim 2 needs to be deleted to make the claim positive.

The term "possibly" recited in line 4 of claim 10 needs to be deleted to make the claim positive.

The acronym "VoIP" recited in line 2 of claim 1 needs to be replaced with "Voice over Internet Protocol (VoIP)".

The acronym "VoIP" recited in line 2 of claim 9 needs to be replaced with "Voice over Internet Protocol (VoIP)".

The word "an" recited in line 2 of claim 9 needs to be replaced with the word "in".

The term "various" recited in line 5 of claim 9 needs to be deleted to make the claim positive.

The term "various" recited in line 5 of claim 1 needs to be deleted to make the claim positive.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 and 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the edge equipment" in line 4. There is no antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the various pieces of equipment or hardware" in lines 5-6. There is no antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the concerned telecommunication link" in line 6. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the telecommunication link".

Claim 2 recites the limitation "the measurement of delay" in line 1. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the real time measurement of delay".

Claim 2 recites the limitation "the involved pieces of equipment or hardware" in lines 2-3. There is no antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the possibly involved pieces of equipment or hardware" in line 4. There is no antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the noise measurement" in line 2. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the real time noise measurement".

Claim 3 recites the limitation "the concerned telecommunication link" in line 3. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the telecommunication link".

Regarding claim 4, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 5 recites the limitation "the considered telecommunication link" in line 3. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the telecommunication link".

Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 8, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 9 recites the limitation "the edge equipment" in line 4. There is no antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the various pieces of equipment or hardware" in lines 5-6. There is no antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the concerned telecommunication link" in line 6. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the telecommunication link".

Claim 10 recites the limitation "the pieces of equipment or hardware" in lines 3-4. There is no antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Note: Claims 4 and 8 recite the phrases "such as" and "for example", the limitations following the phrases are not considered. However, the prior art teaches the limitations.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connell et al. (WO 02/30042 A2) in view of Baj (US 2002/0145979 A1) (both references disclosed by applicant).

For claims 1 and 9, O'Connell discloses determination of the edge equipment (see codec in page 1, lines 10-15);

Determination of the impairments introduced by the various pieces of equipment or hardware involved in the concerned telecommunication link (page 1, lines 10-15 wherein codec performance is determined);

Real time measurement of delay and packet loss in relation with the telecommunication link (page 1, lines 17-22 wherein the delay and packet loss are measured);

Computing the values of the foregoing determined or measured parameters and factors to prove an indicator, preferably a numerical indicator, representative of the quality of service perceived by the user(s) of the telecommunication link (page 12, lines 1-15 wherein the values of the measured parameters are calculated)

For claims 1 and 9, O'Connell, discloses the entire claimed invention except for real time measurement of noise in relation with the telecommunication link

Baj, from the same or similar field of endeavor, teaches noise measurement to determine quality of service of VoIP systems (paragraph 6, lines 1-5)

Thus, it would have been obvious to someone of ordinary skill in the art to combine the noise measurement method of Baj with the communication network of O'Connell at the time of the invention. The noise measurement method of Baj is implemented into the communication network of O'Connell by measuring noise in addition to packet loss and delay. The motivation to combine the noise measurement method of Baj with the communication network of O'Connell is that it provides an efficient mechanism for determining the quality of service of Voice over Internet Protocol (VoIP) systems.

For claims 2 and 10, O'Connell discloses the measurement of delay and packet loss is provided by edge equipment and in that the impairments induced by the involved pieces of equipment or hardware is retrieved from a library or a similar storage means containing information about the possibly involved pieces of equipment (see storage means in Figure 1, element 42 and page 1, lines 10-15 wherein codec performance is determined);

For claim 3, Baj discloses the noise measurement is performed by means of a probe, preferably near one of the ends of the concerned telecommunication link (paragraph 15, lines 1-7 and paragraph 20, lines 1-5 wherein a test tool is used to calculate the noise measurement between the source and destination nodes)

For claim 4, O'Connell discloses the quality of service indicator falls below or reaches a preset acceptable minimum value, an event is automatically generated, such as an alarm or an action on the traffic load of the network or at least of a part of the network (page 1, lines 23-28 wherein if network performance drops below a predetermined value, an event automatically occurs)

For claim 5, Baj discloses the one or several computed quality of service indicator value(s) is (are) recorded in connection with the considered telecommunication link, and analysed after the link has vanished (paragraph 37, lines 1-11 wherein the quality indicators are analyzed and recorded)

For claim 6, O'Connell discloses the method of claim 1 is performed automatically for each call (page 2, lines 27-30 wherein the parameters measurements and the network performance indication are performed automatically for each call)

For claim 7, Baj discloses the method of claim 1 is performed for a specific communication route, automatically or on demand, once, several times or in a repetitive manner (paragraph 39, lines 1-8 and paragraph 28, lines 1-7 wherein the measurements are performed in a specific route on request)

For claim 8, Baj discloses the method of claim 1 is performed on-demand to realize a diagnostic of part of the network, such as for example a port or a mode

(paragraph 39, lines 1-8 and paragraph 31, lines 1-10 wherein a diagnostic procedure for the network is performed on request)

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jo et al. (US 2003/0091029 A1) and Mitsumori et al. (US 2003/0128692 A1) are cited to show systems pertinent to applicant's invention. Jo discloses a routing method based on packet delay. Mitsumori discloses a method for Voice Over Internet Protocol (VoIP) network performance monitoring.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farah Faroul whose telephone number is 571-270-1421. The examiner can normally be reached on Monday - Friday 6:30 AM - 4 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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